

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>39791/IML</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 99/ 03775</b>	International filing date (day/month/year) <b>12/11/1999</b>	(Earliest) Priority Date (day/month/year) <b>13/11/1998</b>
Applicant <b>MARS U.K. LIMITED et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

## 4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

## 5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/03775

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61B5/107 G01N33/12 G01G19/50

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61B G01N G01G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 08437 A (POWELL DAVID KEVIN) 5 March 1998 (1998-03-05)	1,4,5
Y	page 5, line 18 -page 8, column 32; figures	7
Y	PATENT ABSTRACTS OF JAPAN vol. 098, no. 012, 31 October 1998 (1998-10-31)	7
A	& JP 10 192258 A (MATSUSHITA ELECTRIC WORKS LTD), 28 July 1998 (1998-07-28) abstract	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Z" document member of the same patent family

Date of the actual completion of the international search

10 April 2000

Date of mailing of the international search report

18/04/2000

Name and mailing address of the ISA

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Authorized officer

Bosma, R

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/03775

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	RUSH E C ET AL: "Estimation of Body Fat in Caucasian and Polynesian Women from Anthropometric Measurements" APPLIED RADIATION AND ISOTOPES, vol. 49, no. 5-6, 6 May 1998 (1998-05-06), page 749-750 XP004110619 the whole document	1,7
X	FR 2 731 144 A (BERNARD GEORGES ET AL.) 6 September 1996 (1996-09-06) page 4, line 8 -page 6, line 29; figure 1	9,11, 13-15
A	US 5 372 141 A (GALLUP ET AL.) 13 December 1994 (1994-12-13) column 4 -column 17, line 41; figures	9-15

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/03775



Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9808437	A	05-03-1998	AU 3842997 A	19-03-1998
JP 10192258	A	28-07-1998	NONE	
FR 2731144	A	06-09-1996	NONE	
US 5372141	A	13-12-1994	NONE	

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 39791/IML		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB99/03775	International filing date (day/month/year) 12/11/1999	Priority date (day/month/year) 13/11/1998	
International Patent Classification (IPC) or national classification and IPC A61B5/107			
Applicant MARS U.K. LIMITED et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 1 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII <input checked="" type="checkbox"/> Certain observations on the international application</li> </ul>			
Date of submission of the demand  13/06/2000		Date of completion of this report  23.02.2001	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized officer  Lohmann, S  Telephone No. +49 89 2399 2328 	

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**International application No. **PCT/GB99/03775****I. Basis of the report**

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).)*.

**Description, pages:**

1-3,5-12 as originally filed

4 as received on 30/01/2001 with letter of 26/01/2001

**Claims, No.:**

1-15 as originally filed

**Drawings, sheets:**

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**International application No: **PCT/GB99/03775**

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Yes:	Claims 6, 10, 13, 14
	No:	Claims 1-5, 7-9, 11, 12, 15
Inventive step (IS)	Yes:	Claims
	No:	Claims 6, 10, 13, 14
Industrial applicability (IA)	Yes:	Claims 1-15
	No:	Claims

2. Citations and explanations  
**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB99/03775

**Re Item V**

The present invention is **solely** directed towards a **method** of determining body fat in pet mammals or a corresponding formula, respectively, which is stored in a look-up table with exemplary values. Such a look-up table does however **not confer any technical feature** to the claims. It is rather directed towards the **mere presentation of information**. Therefore, the subject-matter of the application is actually covered by the provisions of Article 34(4)(a)(i) PCT and Rule 67.1(v) PCT.

Notwithstanding the above objection, it is indicated that the present application does not meet the requirements of Article 33 PCT, because the subject-matter of the independent claims is not new in the sense of Article 33(2) PCT.

1 Reference is made to the following documents:

D1: WO 98/08437 A (POWELL D K) 5 March 1998

D2: FR 2 731 144 A (BERNARD G, SEVLIAN P) 6 September 1996

2 Document D1 is regarded as closest prior art to the subject-matter of claim 1, and insofar as this claim can be understood (see Section VIII), this document discloses a body fat determining system (tape 10 in Fig. 1 and 2) showing the following features (the references in parentheses applying to this document):

- means for measuring a first body dimension having a high correlation with percentage body fat (sizes A and B indicated in Fig. 1a and Fig. 2a; also cf. page 7, lines 1-10)
- means for measuring a second body dimension having a low correlation with percentage body fat (size C indicated in Fig. 1a and Fig. 2a)
- a look-up table comprising storage areas for entries of both dimensions (storing areas for both body dimensions can be found on tape 10 throughout the figures; Fig. 1c and 2g both show the formula yielding the entries of a corresponding look-up table; also cf. table 1 with entries of percentage body fat).

Consequently, the system of claim 1 is not new in the sense of Article 33(2) PCT.



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB99/03775

It is indicated, that the subject-matter of claim 1 is also anticipated by document D2 (see "capteurs périmétriques" 4, which constitute the means for measuring and "calculateur" 2, in which a corresponding look-up table is stored; also cf. page 5, lines 20-38).

Furthermore, a **common system** for determining the body mass index (BMI) of humans, which has been cited on page 1 of the present application, is also detrimental to the novelty of the system of claim 1 ( $BMI = \text{weight [kg]} / \text{height}^2 [\text{m}^2]$ ). Means for measuring both body characteristics are known (e.g. a ruler or a tape for the height), values yielded by the aforementioned formula are stored in corresponding look-up tables.

- 3 Since in independent claims 8 and 9 in fact no features are presented, which are different to those of independent claim 1 (cf. Section VIII), their novelty is also destroyed for the reasons mentioned above with regard to claim 1.
- 4 Dependent claims 2-7 and 9-15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, respectively, the reasons being as follows:
  - 4.1 Numerous body dimensions, as set out in claims 2 and 3, are disclosed in D1 (see inscriptions on tape 10 and page 8, lines 20-24). The already cited ruler or tape are both **still suitable for measuring any body dimension**, thereby being detrimental to the novelty of these claims.

Each of said body dimensions furthermore merely represents one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill.
  - 4.2 Indications of under, normal or overweight (claim 4) are taught by table 1 of D1, which shows entries of percentage body fat (claim 5).
  - 4.3 The equation brought forward in claims 6 and 10, respectively, merely result from trial-and-error experiments. Corresponding features can therefore not be considered to be based on an inventive step.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB99/03775

- 4.4 Each of the systems discussed above (see D1, D2 and the common system for BMI determination) are suitable for being applied to a cat, thereby being detrimental to the novelty of the subject-matter of claims 7 and 15.
- 4.5 The ideal weight as a target weight, as set out in claim 11, is taught by D1, cf. table 1 and 3.
- 4.6 The lack of novelty for claim 12 follows from the objections with regard to claims 1 and 9.
- 4.7 The consideration of the energy allowance, as set out in claims 13 and 14, is obvious in view of page 5, lines 15-19, of D2.

**Re Item VII**

- 1 The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).  
The independent claims should therefore have been redrafted accordingly.
- 2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in document D1 is not mentioned in the description, nor is this document identified therein.
- 3 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB99/03775

**Re It m VIII**

- 1 Although claims 1 and 9 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought.

Hence, claims 1 and 9 do not meet the requirements of Article 6 PCT.

In this respect, the applicant's attention is also drawn to the requirement of unity of the invention (Rule 13 PCT), which is no more satisfied, since the subject-matter of all independent claims is not new in view of the prior art.

- 2 The degree of correlation between a body dimension and the percentage body fat does not confer any **technical feature** to the measuring means of claim 1, contrary to the requirements of Article 6 PCT.
- 3 Since both measurements of claim 1 can e.g. be performed using **the same** tape measure, both means for measuring in fact correspond to **one single feature**.
- 4 The feature in system claim 1, according to which the indication of body fat is determined from a relationship, relates to a method of using the apparatus rather than clearly defining the apparatus in terms of its **technical features**. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.
- 5 Claim 4 attempts to define its subject-matter in terms of the result to be achieved which merely amounts to a statement of the underlying problem, thereby violating Article 6 PCT. The technical features necessary for achieving this result should have been added.

**INTERNATIONAL PRELIMINARY**

International application No. PCT/GB99/03775

**EXAMINATION REPORT - SEPARATE SHEET**

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- 6 Claims 7 and 15 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The functional statement of a cat to be measured does not enable the skilled person to determine which technical features are necessary to perform the stated function (also cf. the Guidelines PCT III-4.8a).

WO 00/28897

PCT/GB99/03775

- 4 -

Figure 4 - is a diagrammatic representation of a third look-up table;

Figure 5 - is a diagrammatic representation of a fourth look-up table;

5 Figure 6 - is a diagrammatic representation of a fifth look-up table; and

Figure 7 - is a diagrammatic representation of a sixth look-up table.

10 The embodiment shown in Figure 1 may be either manually operated, or a computerised system. A first measurement device 10 and a second measurement device 12 are provided to take measurements of, respectively, the ribcage circumference and the leg index measurement [LIM] to provide the results to the look-up table 18. In a  
15 computerised embodiment, the measurement devices 10, 12 would provide measurement signals to a computer, storing therein in first, second and output storage areas respectively, ribcage and LIM, and corresponding fat percentage indications. These are shown as storage and  
20 determination functions 14 in Figure 1. The results are displayed as an output display 18. The determination algorithm (described later) could be coded in any simple computer language, and is within the common general knowledge of the skilled person, and need not be described  
25 here.

A manual representation of the look-up table 18 is shown in Figures 2 and 3. There is shown a first storage area 20, storing first body dimensions (ribcage) measurements, and a second storage area 22, storing second body  
30 dimensions (LIM). An output storage area 24 stores an

*Replaced by Article 34*

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

## PCT

To:

LOVELESS, IAN MARK  
REDDIE & GROSE  
16, Theobalds Road  
London WC1X 8PL  
GRANDE BRETAGNE

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

IMC

13.5.01

Date of mailing  
(day/month/year)

23.02.2001

Applicant's or agent's file reference  
39791/IML

**IMPORTANT NOTIFICATION**

International application No.  
PCT/GB99/03775

International filing date (day/month/year)  
12/11/1999

Priority date (day/month/year)  
13/11/1998

Applicant

MARS U.K. LIMITED et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/



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D-80298 Munich  
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Fax: +49 89 2399 - 4465

Authorized officer

Edel, M

Tel. +49 89 2399-2426




# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 39791/IML		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB99/03775	International filing date (day/month/year) 12/11/1999	Priority date (day/month/year) 13/11/1998	
International Patent Classification (IPC) or national classification and IPC A61B5/107			
Applicant MARS U.K. LIMITED et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 1 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII <input checked="" type="checkbox"/> Certain observations on the international application</li> </ul>			
Date of submission of the demand 13/06/2000		Date of completion of this report 23.02.2001	
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized officer  Lohmann, S  Telephone No. +49 89 2399 2328	



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB99/03775

## I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).):*

### Description, pages:

1-3,5-12	as originally filed		
4	as received on	30/01/2001	with letter of 26/01/2001

### Claims, No.:

1-15 as originally filed

### Drawings, sheets:

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB99/03775

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims 6, 10, 13, 14
	No:	Claims 1-5, 7-9, 11, 12, 15
Inventive step (IS)	Yes:	Claims
	No:	Claims 6, 10, 13, 14
Industrial applicability (IA)	Yes:	Claims 1-15
	No:	Claims

2. Citations and explanations  
**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

Re Item V

The present invention is **solely** directed towards a **method** of determining body fat in pet mammals or a corresponding formula, respectively, which is stored in a look-up table with exemplary values. Such a look-up table does however **not confer any technical feature** to the claims. It is rather directed towards the **mere presentation of information**. Therefore, the subject-matter of the application is actually covered by the provisions of Article 34(4)(a)(i) PCT and Rule 67.1(v) PCT.

Notwithstanding the above objection, it is indicated that the present application does not meet the requirements of Article 33 PCT, because the subject-matter of the independent claims is not new in the sense of Article 33(2) PCT.

- 1 Reference is made to the following documents:

D1: WO 98/08437 A (POWELL D K) 5 March 1998

D2: FR 2 731 144 A (BERNARD G, SEVLIAN P) 6 September 1996

- 2 Document D1 is regarded as closest prior art to the subject-matter of claim 1, and insofar as this claim can be understood (see Section VIII), this document discloses a body fat determining system (tape 10 in Fig. 1 and 2) showing the following features (the references in parentheses applying to this document):

- means for measuring a first body dimension having a high correlation with percentage body fat (sizes A and B indicated in Fig. 1a and Fig. 2a; also cf. page 7, lines 1-10)
- means for measuring a second body dimension having a low correlation with percentage body fat (size C indicated in Fig. 1a and Fig. 2a)
- a look-up table comprising storage areas for entries of both dimensions (storing areas for both body dimensions can be found on tape 10 throughout the figures; Fig. 1c and 2g both show the formula yielding the entries of a corresponding look-up table; also cf. table 1 with entries of percentage body fat).

Consequently, the system of claim 1 is not new in the sense of Article 33(2) PCT.

It is indicated, that the subject-matter of claim 1 is also anticipated by document D2 (see "capteurs périmétriques" 4, which constitute the means for measuring and "calculateur" 2, in which a corresponding look-up table is stored; also cf. page 5, lines 20-38).

Furthermore, a **common system** for determining the body mass index (BMI) of humans, which has been cited on page 1 of the present application, is also detrimental to the novelty of the system of claim 1 ( $BMI = \text{weight [kg]} / \text{height}^2 [\text{m}^2]$ ). Means for measuring both body characteristics are known (e.g. a ruler or a tape for the height), values yielded by the aforementioned formula are stored in corresponding look-up tables.

- 3 Since in independent claims 8 and 9 in fact no features are presented, which are different to those of independent claim 1 (cf. Section VIII), their novelty is also destroyed for the reasons mentioned above with regard to claim 1.
- 4 Dependent claims 2-7 and 9-15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, respectively, the reasons being as follows:
  - 4.1 Numerous body dimensions, as set out in claims 2 and 3, are disclosed in D1 (see inscriptions on tape 10 and page 8, lines 20-24). The already cited ruler or tape are both **still suitable for measuring any body dimension**, thereby being detrimental to the novelty of these claims.

Each of said body dimensions furthermore merely represents one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill.
  - 4.2 Indications of under, normal or overweight (claim 4) are taught by table 1 of D1, which shows entries of percentage body fat (claim 5).
  - 4.3 The equation brought forward in claims 6 and 10, respectively, merely result from trial-and-error experiments. Corresponding features can therefore not be considered to be based on an inventive step.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB99/03775

- 4.4 Each of the systems discussed above (see D1, D2 and the common system for BMI determination) are suitable for being applied to a cat, thereby being detrimental to the novelty of the subject-matter of claims 7 and 15.
- 4.5 The ideal weight as a target weight, as set out in claim 11, is taught by D1, cf. table 1 and 3.
- 4.6 The lack of novelty for claim 12 follows from the objections with regard to claims 1 and 9.
- 4.7 The consideration of the energy allowance, as set out in claims 13 and 14, is obvious in view of page 5, lines 15-19, of D2.

**Re Item VII**

- 1 The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).  
The independent claims should therefore have been redrafted accordingly.
- 2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in document D1 is not mentioned in the description, nor is this document identified therein.
- 3 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET

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International application No. PCT/GB99/03775

Re Item VIII

- 1 Although claims 1 and 9 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought.

Hence, claims 1 and 9 do not meet the requirements of Article 6 PCT.

In this respect, the applicant's attention is also drawn to the requirement of unity of the invention (Rule 13 PCT), which is no more satisfied, since the subject-matter of all independent claims is not new in view of the prior art.

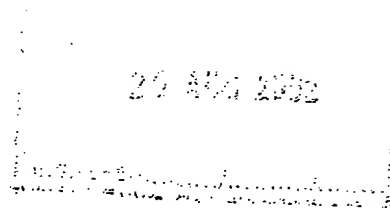
- 2 The degree of correlation between a body dimension and the percentage body fat does not confer any **technical feature** to the measuring means of claim 1, contrary to the requirements of Article 6 PCT.
- 3 Since both measurements of claim 1 can e.g. be performed using **the same** tape measure, both means for measuring in fact correspond to **one single feature**.
- 4 The feature in system claim 1, according to which the indication of body fat is determined from a relationship, relates to a method of using the apparatus rather than clearly defining the apparatus in terms of its **technical features**. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.
- 5 Claim 4 attempts to define its subject-matter in terms of the result to be achieved which merely amounts to a statement of the underlying problem, thereby violating Article 6 PCT. The technical features necessary for achieving this result should have been added.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB99/03775

- 6 Claims 7 and 15 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The functional statement of a cat to be measured does not enable the skilled person to determine which technical features are necessary to perform the stated function (also cf. the Guidelines PCT III-4.8a).



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29 August 2002

Mr Ray Tettman  
WATERMARK PATENT & TRADEMARK ATTORNEYS  
Locked Bag 5  
HAWTHORN VIC 3122

Your Ref : P19614AU00

Examiner's first report on patent application no. 10649/00  
by MARS UK LIMITED

Last proposed amendment no.

Dear Mr Tettman,

I am replying to the request for examination. I have based this report on the verified translation and the amendments already made under the Articles of the PCT dated 30 January 2001. I have examined the application and I believe that there are lawful grounds of objection to the application. These grounds of objection are:

1. There is no Notice of Entitlement on file.
2. The invention defined in Claims 1, 8, 9 et al is not novel when compared with the following document which discloses all the essential features of the invention claimed:
  - a) WO 98/08437 A (Powell) and
  - b) FR 2731144 A (Bernard et al) as cited in the corresponding IPER.
3. The additional features of appended Claims 2 to 7 and 10 to 15 are considered to be either explicitly disclosed by the above citations, or part of the common general knowledge of the health industry, hence they are not considered to be novel or involve an inventive step.

You have 21 months from the date of this report to overcome all my objection(s) otherwise your application will lapse. You will need to pay a monthly fee for any response you file after 12 months from the date of this report.

Yours sincerely,

COLIN FITZGIBBON  
Examiner of Patents, Section B5  
Telephone: (02) 6283 2226

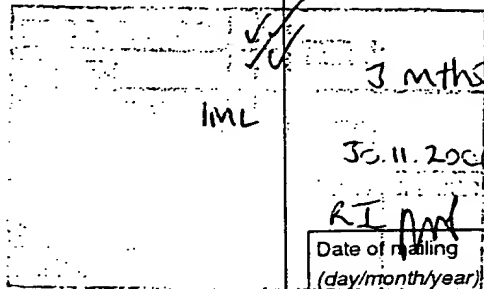
# PATENT COOPERATION TREATY

From the:  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

LOVELESS, IAN MARK  
REDDIE & GROSE  
16, Theobalds Road  
London WC1X 8PL  
GRANDE BRETAGNE



WRITTEN OPINION

(PCT Rule 66)

Applicant's or agent's file reference

39791/IML

REPLY DUE

within 3 month(s)  
from the above date of mailing

International application No.

PCT/GB99/03775

International filing date (day/month/year)

12/11/1999

Priority date (day/month/year)

13/11/1998

International Patent Classification (IPC) or both national classification and IPC

A61B5/107

Applicant

MARS U.K. LIMITED et al.

1. This written opinion is the first drawn up by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain document cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 13/03/2001.

Name and mailing address of the international preliminary examining authority:



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer / Examiner

Lohmann, S

Formalities officer (incl. extension of time limits)

Kiepe, C

Telephone No. +49 89 2399 2423





## WRITTEN OPINION

International application No. PCT/GB99/03775

### I. Basis of the opinion

1. This opinion has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*):

#### Description, pages:

1-12 as originally filed

#### Claims, No.:

1-15 as originally filed

#### Drawings, sheets:

1/5-5/5 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

### V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

#### 1. Statement

Novelty (N)	Claims	1, 7, 8, 9, 15
Inventive step (IS)	Claims	2-6, 10-14
Industrial applicability (IA)	Claims	

#### 2. Citations and explanations

see s parat sh et

Re Item V

The present application does not meet the requirements of Article 33 PCT, because the subject-matter of the independent claims is not new in the sense of Article 33(2) PCT.

- 1 Reference is made to the following documents:

D1: WO 98/08437 A (POWELL D K) 5 March 1998

D2: FR 2 731 144 A (BERNARD G, SEVLIAN P) 6 September 1996

- 2 Document D1 is regarded as closest prior art to the subject-matter of claim 1, and insofar as this claim can be understood (see Section VIII), this document discloses a body fat determining system (tape 10 in Fig. 1 and 2) showing the following features (the references in parentheses applying to this document):

- means for measuring a first body dimension having a high correlation with percentage body fat (sizes A and B indicated in Fig. 1a and Fig. 2a; also cf. page 7, lines 1-10)
- means for measuring a second body dimension having a low correlation with percentage body fat (size C indicated in Fig. 1a and Fig. 2a)
- a look-up table comprising storage areas for entries of both dimensions (storing areas for both body dimensions can be found on tape 10 throughout the figures; Fig. 1c and 2g both show the formula yielding the entries of a corresponding look-up table; also cf. table 1 with entries of percentage body fat).

Consequently, the system of claim 1 is not new in the sense of Article 33(2) PCT.

It is indicated, that the subject-matter of claim 1 is also anticipated by document D2 (see capteurs périmétriques 4, which constitute the means for measuring and calculateur 2, in which a corresponding look-up table is stored; also cf. page 5, lines 20-38).

Furthermore, a **common system** for determining the body mass index (BMI) of humans, which has been cited on page 1 of the present application, is also detrimental to the novelty of the system of claim 1 ( $BMI = \text{weight [kg]} / \text{height}^2 [\text{m}^2]$ , where the weight is highly correlated and the height is lowly correlated with the body mass). Means for measuring both body characteristics are known, values yielded by the aforementioned formula are stored in corresponding look-up tables.

- 3 Since in independent claims 8 and 9 in fact no features are presented, which are different to those of independent claim 1 (cf. Section VIII), their novelty is also destroyed for the reasons mentioned above with regard to claim 1.
- 4 Dependent claims 2-7 and 9-15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, respectively, the reasons being as follows:
  - 4.1 Numerous body dimensions, as set out in claims 2 and 3, are suggested by D1 (see inscriptions on tape 10 and page 8, lines 20-24). Each of them furthermore merely represents one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill.
  - 4.2 Indications of under, normal or overweight (claim 4) are given in table 1 of D1, which shows entries of percentage body fat (claim 5).
  - 4.3 The equation brought forward in claims 6 and 10, respectively, merely result from trial-and-error experiments. Corresponding features can therefore not be considered to be based on an inventive step.
  - 4.4 Each of the systems discussed above (see D1, D2 and the common system for BMI determination) are suitable for being applied to a cat, thereby being detrimental to the novelty of the subject-matter of claims 7 and 15.
  - 4.5 The subject-matter of claims 11-14 merely represents common knowledge, thereby not involving an inventive step. With regard to the daily energy allowance, reference is made to page 5, lines 15-19, of D1.

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

Re Item VII

In summary, the subject-matter of the present application does not appear to be patentable at all. Should the applicant nevertheless regard any aspect of the application as to fulfill the requirements of the PCT, it should be accounted for the following observations:

- argue* 1 The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).  
The independent claims should therefore be redrafted accordingly.
- include* 2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in document D1 is not mentioned in the description, nor is this document identified therein.
- leave* 3 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- avoid* 4 According to the requirements of Rule 11.13(I) reference signs not appearing in the description shall not appear in the drawings, and vice versa. This requirement is not met in view of the reference sign 16 in Fig. 1.
- 5 In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and **to indicate the passages of the application as filed on which these amendments are based.**

The applicant is requested to file amendments by way of replacement pages in the manner stipulated by Rule 66.8(a) PCT. In particular, fair copies of the amendments should be filed preferably in triplicate.

Re Item VIII

- 1 Although claims 1 and 9 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought.

Hence, claims 1 and 9 do not meet the requirements of Article 6 PCT.

In this respect, the applicant's attention is also drawn to the requirement of unity of the invention (Rule 13 PCT), which is no more satisfied, since the subject-matter of all independent claims is not new in view of the prior art.

- 2 The degree of correlation between a body dimension and the percentage body fat does not confer any **technical feature** to the measuring means of claim 1, contrary to the requirements of Article 6 PCT.
- 3 Since both measurements of claim 1 can e.g. be performed using **the same** tape measure, both means for measuring in fact correspond to **one single feature**.
- 4 The feature in system claim 1, according to which the indication of body fat is determined from a relationship, relates to a method of using the apparatus rather than clearly defining the apparatus in terms of its **technical features**. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.
- 5 Claim 4 attempts to define its subject-matter in terms of the result to be achieved which merely amounts to a statement of the underlying problem, thereby violating Article 6 PCT. The technical features necessary for achieving this result should be added.

**WRITTEN OPINION  
SEPARATE SHEET**

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International application No. PCT/GB99/03775

- 6 Claims 7 and 15 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The functional statement of a cat to be measured does not enable the skilled person to determine which technical features are necessary to perform the stated function (also cf. the Guidelines PCT III-4.8a).